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<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,JPAB,EPAB,DWPI,TDBD	L5 and (modified gamma34.5)	0	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	L5 and ((modified gamma) adj 34.5)	0	<u>L9</u>
USPT,JPAB,EPAB,DWPI,TDBD	L5 and L2	0	<u>L8</u>
USPT,JPAB,EPAB,DWPI,TDBD	L5 and (mutant HSV)	0	<u>L7</u>
USPT,JPAB,EPAB,DWPI,TDBD	L5 and (mutant HSV-?)	0	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	L4 and (mesothelioma or (ovarian carcinoma) or (bladder cancer) or melanoma)	125	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	L1 and (cancer treatment)	254	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	(strain adj (1716 or 1771 or 2604 or 2616 or 2621))	1	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	(ICP 34.5)	5	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	((Herpes simplex) adj virus) or (HSV-1) or (HSV-2)	6147	<u>L1</u>

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Search Results - Record(s) 1 through 1 of 1 returned.

☐ 1. Document ID: US 6040169 A

L3: Entry 1 of 1

File: USPT

Mar 21, 2000

US-PAT-NO: 6040169

DOCUMENT-IDENTIFIER: US 6040169 A

TITLE: Herpes simplex virus-1 deletion variants and vaccines thereof

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

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Term	Documents
STRAIN.DWPI,TDBD,EPAB,JPAB,USPT.	196880
STRAINS.DWPI,TDBD,EPAB,JPAB,USPT.	55136
"1716".DWPI,TDBD,EPAB,JPAB,USPT.	3788
1716S.DWPI,TDBD,EPAB,JPAB,USPT.	87
"1771".DWPI,TDBD,EPAB,JPAB,USPT.	2205
1771S.DWPI,TDBD,EPAB,JPAB,USPT.	31
"2604".DWPI,TDBD,EPAB,JPAB,USPT.	29714
2604S	0
"2616".DWPI,TDBD,EPAB,JPAB,USPT.	1946
2616S	0
((STRAIN ADJ (1716 OR 1771 OR 2604 OR 2616 OR 2621))) .USPT,JPAB,EPAB,DWPI,TDBD.	1

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WEST[Generate Collection](#)**Search Results - Record(s) 1 through 5 of 5 returned.**☐ 1. Document ID: US 6087170 A

L2: Entry 1 of 5

File: USPT

Jul 11, 2000

US-PAT-NO: 6087170

DOCUMENT-IDENTIFIER: US 6087170 A

TITLE: VZV gene, mutant VZV and immunogenic compositions

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

☐ 2. Document ID: US 6040169 A

L2: Entry 2 of 5

File: USPT

Mar 21, 2000

US-PAT-NO: 6040169

DOCUMENT-IDENTIFIER: US 6040169 A

TITLE: Herpes simplex virus-1 deletion variants and vaccines thereof

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

☐ 3. Document ID: US 5328688 A

L2: Entry 3 of 5

File: USPT

Jul 12, 1994

US-PAT-NO: 5328688

DOCUMENT-IDENTIFIER: US 5328688 A

TITLE: Recombinant herpes simplex viruses vaccines and methods

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

☐ 4. Document ID: AU 682463 B, WO 9319591 A1, AU 9337818 A, JP 07507997 W, EP 675961 A1, EP 675961 A4

L2: Entry 4 of 5

File: DWPI

Oct 9, 1997

DERWENT-ACC-NO: 1993-336453
DERWENT-WEEK: 199749
COPYRIGHT 2000 DERWENT INFORMATION LTD

TITLE: Use of gamma, 34.5 gene or encoded ICP 34.5 - for preventing or treating programmed cell death in neuronal cells or in screening assays

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

☐ 5. Document ID: ES 2102409 T3, WO 9204050 A, AU 9187418 A, EP 500917 A1, JP 05503017 W, US 5328688 A, EP 500917 A4, AU 658838 B, EP 500917 B1, DE 69125925 E
L2: Entry 5 of 5 File: DWPI Aug 1, 1997

DERWENT-ACC-NO: 1992-114074
DERWENT-WEEK: 199737
COPYRIGHT 2000 DERWENT INFORMATION LTD

TITLE: New recombinant Herpes Simplex Virus vaccines - rendered avirulent by deletion of ICP 34.5 gene encoding active gene prod.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

Generate Collection

Term	Documents
ICP.DWPI,TDBD,EPAB,JPAB,USPT.	3405
ICPS.DWPI,TDBD,EPAB,JPAB,USPT.	150
"34.5".DWPI,TDBD,EPAB,JPAB,USPT.	12002
34.5S	0
(ICP ADJ "34.5").USPT,JPAB,EPAB,DWPI,TDBD.	5

Display

10

Documents, starting with Document:

5

Display Format:

TI

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Status: Path 1 of [Dialog Information Services via Modem]

Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)
Trying 3106900061...Open

DIALOG INFORMATION SERVICES

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***** HHHHHHHH SSSSSSSS?zts0dhlz *****

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Status: Connected

Dialog level 00.07.20D

Last logoff: 27jul00 07:18:32

Logon file001 29jul00 10:43:59

*** ANNOUNCEMENT ***

NEW FILE RELEASED

***Prous Science Daily Essentials (Files 458, 459)

***WIPO/PCT Patents Fulltext (File 349)

UPDATING RESUMED

***GPO Monthly Catalog (File 66)

***Bridge World Markets News (File 609,809)

***Fort Worth Star-Telegram (File 427)

***Federal News Service (File 660)

***Kansas City Star (File 147)

***British Books in Print (File 430)

RELOADED

***Kompass Canada (File 594)

***Books in Print (File 470)

***Kompass Asia/Pacific (File 592)

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>>> of new databases, price changes, etc. <<<

KWIC is set to 50.

HIGHLIGHT set on as ''

File 1:ERIC 1966-2000/Jul 22
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Set	Items	Description
---	----	-----

?b 155, 5, 73

29jul00 10:44:11 User259876 Session D94.1

\$0.40 0.115 DialUnits File1

\$0.40 Estimated cost File1

\$0.01 TYMNET

\$0.41 Estimated cost this search

\$0.41 Estimated total session cost 0.115 DialUnit

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1966-2000/Sep W4

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File 5:Biosis Previews(R) 1969-2000/Jul W5

(c) 2000 BIOSIS

File 73:EMBASE 1974-2000/Jul W1

(c) 2000 Elsevier Science B.V.

*File 73: There is no data missing. UDs are being adjusted to reflect the current months data.

Set	Items	Description
---	----	-----
?s (herpes	(w) simplex (w) virus)	or (HSV-1) or (HSV-2)
	102380	HERPES
	81124	SIMPLEX
	988353	VIRUS
	59466	HERPES(W)SIMPLEX(W)VIRUS
	97	HSV-1
	35	HSV-2
S1	59466	(HERPES (W) SIMPLEX (W) VIRUS) OR (HSV-1) OR (HSV-2)
?s (gamma	(w) 34.5)	or (ICP (w) 34.5)
	488199	GAMMA
	0	34.5
	0	GAMMA(W)34.5
	10463	ICP
	0	34.5
	0	ICP(W)34.5
S2	0	(GAMMA (W) 34.5) OR (ICP (W) 34.5)
?s (? (w) 34.5)		or (ICP)
>>>File 155 processing for ? stopped at AAUAUA		
>>>File 5 processing for ? stopped at AASTRIC		
Processing		
>>>File 73 processing for ? stopped at AAU2		
Processing		
	17043927	?
	0	34.5
	0	?(W)34.5
	10463	ICP
S3	10463	(? (W) 34.5) OR (ICP)
?s s1 and s3		
	59466	S1
	10463	S3
S4	342	S1 AND S3
?s s4 and (cancer?)		
	342	S4
	1546783	CANCER?
S5	50	S4 AND (CANCER?)
?s s5 and (mutant	(w) HSV-?)	
	50	S5
	329120	MUTANT
	401	HSV-?
	0	MUTANT(W)HSV-?
S6	0	S5 AND (MUTANT (W) HSV-?)
?s s5 and (mutant	(w) HSV)	
	50	S5
	329120	MUTANT
	29031	HSV
	131	MUTANT(W)HSV
S7	2	S5 AND (MUTANT (W) HSV)
?rd		
...completed examining records		
S8	2	RD (unique items)
?t s8/3,k/all		

8/3,K/1 (Item 1 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

10221996 20075752

Combined therapy with chemotherapeutic agents and *herpes* *simplex*
virus type 1 ICP34.5 *mutant* (*HSV*-1716) in human non-small cell lung
cancer.

Toyoizumi T; Mick R; Abbas AE; Kang EH; Kaiser LR; Molnar-Kimber KL
Department of Surgery, University of Pennsylvania School of Medicine,
Philadelphia 19104, USA.

Human gene therapy (UNITED STATES) (Dec 10 1999, 10 (18) p3013-29,

ISSN 1043-0342 Journal Code: A12

Contract/Grant No.: CA66727-S1, CA, NCI; CA16520-24, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Combined therapy with chemotherapeutic agents and *herpes* *simplex*
virus type 1 ICP34.5 *mutant* (*HSV*-1716) in human non-small cell lung
cancer.

A replication-selective *herpes* *simplex* *virus* type 1 ICP34.5
mutant (*HSV*-1716) has shown efficacy both in vitro and in vivo against
human non-small cell lung *cancer* (NSCLC) cell lines but complete
eradication of tumor has not been accomplished with a single viral
treatment in our murine xenograft models. Therefore, strategies to...

Chemical Name: NAD(P)H Dehydrogenase (Quinone); (Antineoplastic Agents; (
ICP 34.5 protein; (Viral Proteins; (Cisplatin; (Doxorubicin; (Mitomycin;
(Methotrexate

8/3,K/2 (Item 1 from file: 5)
DIALOG(R) File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

10992921 BIOSIS NO.: 199799614066

Treatment of experimental subcutaneous human melanoma with a
replication-restricted *herpes* *simplex* *virus* mutant.

AUTHOR: Randazzo Bruce P(a); Bhat Mulki G; Kesari Santosh; Fraser Nigel W;
Brown S Moira

AUTHOR ADDRESS: (a)The Wistar Inst., Room 317, 3601 Spruce St.,
Philadelphia, PA, 19104**USA

1997

JOURNAL: Journal of Investigative Dermatology 108 (6):p933-937 1997

ISSN: 0022-202X

RECORD TYPE: Abstract

LANGUAGE: English

Treatment of experimental subcutaneous human melanoma with a
replication-restricted *herpes* *simplex* *virus* mutant.

...ABSTRACT: melanoma. In this report, we show that HSV-1716, an HSV-1
mutant lacking both copies of the gene coding-infected cell protein 34.5
(*ICP* 34.5), can effectively treat experimental subcutaneous human
melanoma in mice. In vitro, HSV-1716 replicated in all 26 human melanoma
cell lines tested, efficiently...

...preformed subcutaneous human melanoma nodules in SCID mice and caused
complete regression of some tumors. This work expands the potential scope
of HSV-1-based *cancer* therapy.

DESCRIPTORS:

ORGANISMS: *herpes* *simplex* *virus*-1 (Herpesviridae...

MISCELLANEOUS TERMS: ...REPLICATION RESTRICTED *MUTANT* *HSV*-1716...

...VIRUS-BASED *CANCER* THERAPY

?ds

Set	Items	Description
S1	59466	(HERPES (W) SIMPLEX (W) VIRUS) OR (HSV-1) OR (HSV-2)
S2	0	(GAMMA (W) 34.5) OR (ICP (W) 34.5)
S3	10463	(? (W) 34.5) OR (ICP)
S4	342	S1 AND S3
S5	50	S4 AND (CANCER?)
S6	0	S5 AND (MUTANT (W) HSV-?)
S7	2	S5 AND (MUTANT (W) HSV)
S8	2	RD (unique items)

?s s5 and ((strain (w) (1716 or 1771 or 2604 or 2616 or 2621))
 >>>Unmatched parentheses
 ?s s5 and (strain (w) (1716 or 1771 or 2604 or 2616 or 2621))
 50 S5
 466812 STRAIN
 391 1716
 530 1771
 136 2604
 250 2616
 107 2621
 21 STRAIN(W) (((1716 OR 1771) OR 2604) OR 2616) OR 2621)
 S9 1 S5 AND (STRAIN (W) (1716 OR 1771 OR 2604 OR 2616 OR 2621))

?t s9/3,k/all

9/3,K/1 (Item 1 from file: 155)
 DIALOG(R) File 155:MEDLINE(R)
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08847052 96388219

Selective vulnerability of mouse CNS neurons to latent infection with a neuroattenuated *herpes* *simplex* *virus*-1.

Kesari S; Lee VM; Brown SM; Trojanowski JQ; Fraser NW
 Wistar Institute, University of Pennsylvania School of Medicine, Philadelphia 19104, USA.

Journal of neuroscience (UNITED STATES) Sep 15 1996, 16 (18) p5644-53,
 ISSN 0270-6474 Journal Code: JDF

Contract/Grant No.: NS29390, NS, NINDS; MH10915, MH, NIMH; CA-36245, CA, NCI

Languages: ENGLISH
 Document type: JOURNAL ARTICLE

Selective vulnerability of mouse CNS neurons to latent infection with a neuroattenuated *herpes* *simplex* *virus*-1.

Herpes simplex viruses that lack ICP34.5 are neuroattenuated and are presently being considered for *cancer* and gene therapy in the nervous system. Previously, we documented the focal presence of the latency-associated transcripts (LATs) in the hippocampi of immunocompromised mice after intracranial (IC) inoculation of an ICP34.5-deficient virus called *strain* *1716*. To characterize further the biological properties of *strain* *1716* in the CNS of immunocompetent mice, we determined the extent of viral gene expression in different cell types and regions of the CNS after stereotactic...

... infection, depending on the site of inoculation. These results suggest that the absence of ICP34.5 does not abrogate latent infection of the CNS by *strain* *1716*. Additional studies of *strain* *1716* in the model system described here will facilitate the elucidation of the mechanisms that regulate the selective vulnerability of CNS cells to latent viral infection...

Chemical Name: *ICP* 34.5 protein; (Viral Proteins
 ?ds

Set	Items	Description
S1	59466	(HERPES (W) SIMPLEX (W) VIRUS) OR (HSV-1) OR (HSV-2)
S2	0	(GAMMA (W) 34.5) OR (ICP (W) 34.5)
S3	10463	(? (W) 34.5) OR (ICP)

S4 342 S1 AND
 S5 50 S4 AND (CANCER?)
 S6 0 S5 AND (MUTANT (W) HSV-?)
 S7 2 S5 AND (MUTANT (W) HSV)
 S8 2 RD (unique items)
 S9 1 S5 AND (STRAIN (W) (1716 OR 1771 OR 2604 OR 2616 OR 2621))
 ?rd s5
 ...examined 50 records (50)
 ...completed examining records
 S10 36 RD S5 (unique items)
 ?t s10/3,k/all

10/3,K/1 (Item 1 from file: 155)
 DIALOG(R) File 155:MEDLINE(R)
 (c) format only 2000 Dialog Corporation. All rts. reserv.

10221996 20075752

**Combined therapy with chemotherapeutic agents and *herpes* *simplex*
 virus type 1 ICP34.5 mutant (HSV-1716) in human non-small cell lung
 cancer.**

Toyozumi T; Mick R; Abbas AE; Kang EH; Kaiser LR; Molnar-Kimber KL
 Department of Surgery, University of Pennsylvania School of Medicine,
 Philadelphia 19104, USA.

Human gene therapy (UNITED STATES) Dec 10 1999, 10 (18) p3013-29,
 ISSN 1043-0342 Journal Code: A12

Contract/Grant No.: CA66727-S1, CA, NCI; CA16520-24, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

**Combined therapy with chemotherapeutic agents and *herpes* *simplex*
 virus type 1 ICP34.5 mutant (HSV-1716) in human non-small cell lung
 cancer.**

A replication-selective *herpes* *simplex* *virus* type 1 ICP34.5 mutant
 (HSV-1716) has shown efficacy both in vitro and in vivo against human
 non-small cell lung *cancer* (NSCLC) cell lines but complete eradication of
 tumor has not been accomplished with a single viral treatment in our murine
 xenograft models. Therefore, strategies to...

Chemical Name: NAD(P)H Dehydrogenase (Quinone); (Antineoplastic Agents; (
 ICP 34.5 protein; (Viral Proteins; (Cisplatin; (Doxorubicin; (Mitomycin;
 (Methotrexate

10/3,K/2 (Item 2 from file: 155)
 DIALOG(R) File 155:MEDLINE(R)
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09456437 98178646

**A neuroattenuated ICP34.5-deficient *herpes* *simplex* *virus* type 1
 replicates in ependymal cells of the murine central nervous system.**

Kesari S; Lasner TM; Balsara KR; Randazzo BP; Lee VM; Trojanowski JQ;
 Fraser NW

The Wistar Institute, Department of Pathology and Laboratory Medicine,
 University of Pennsylvania School of Medicine, Philadelphia 19104, USA.

Journal of general virology (ENGLAND) Mar 1998, 79 (Pt 3) p525-36,
 ISSN 0022-1317 Journal Code: I9B

Contract/Grant No.: NS29390, NS, NINDS; MH10915, MH, NIMH; CA-36245, CA,
 NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

**A neuroattenuated ICP34.5-deficient *herpes* *simplex* *virus* type 1
 replicates in ependymal cells of the murine central nervous system.**

Herpes *simplex* *virus* type 1 (HSV-1) variant 1716 is deleted in the
 gene encoding ICP34.5 and is neuroattenuated after intracranial inoculation
 of mice. Although the mechanism...

... murine CNS. A tailed understanding of the mechanism(s) of neuroattenuation and limited replication could lead to the rational design of safe HSV vectors for *cancer* and gene therapy in the CNS.

Chemical Name: Glial Fibrillary Acidic Protein; (*ICP* 34.5 protein; (Microtubule-Associated Proteins; (Viral Proteins

10/3,K/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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09348505 98062157

***Herpes* *simplex* *virus* 1716, an *ICP* 34.5 null mutant, is unable to replicate in CV-1 cells due to a translational block that can be overcome by coinfection with SV40.**

Randazzo BP; Tal-Singer R; Zabolotny JM; Kesari S; Fraser NW

The Wistar Institute, Philadelphia, PA 19104, USA.

Journal of general virology (ENGLAND) Dec 1997, 78 (Pt 12) p3333-9, ISSN 0022-1317 Journal Code: I9B

Contract/Grant No.: 1K08CA65839, CA, NCI; NS33768, NS, NINDS

Languages: ENGLISH

Document type: JOURNAL ARTICLE

***Herpes* *simplex* *virus* 1716, an *ICP* 34.5 null mutant, is unable to replicate in CV-1 cells due to a translational block that can be overcome by coinfection with SV40.**

***Herpes* *simplex* *virus* (HSV) mutants lacking the gene encoding infected cell protein (*ICP*) 34.5 exhibit an attenuated phenotype in models of pathogenesis and have been used for experimental *cancer* therapy. Recently it was shown that the HSV *ICP* 34.5 protein functions to prevent the host cell-induced double-stranded RNA-activated protein kinase (PKR)-dependent translational block that normally occurs during virus infection. We now report that an HSV *ICP* 34.5 mutant called HSV-1716 is unable to replicate in the simian kidney cell-derived line CV-1, due to a translational block. Moreover...**

... restored when infections are done in the presence of the phosphatase inhibitor okadaic acid. These results support, but do not directly prove, contentions that HSV *ICP* 34.5 interacts with the PKR pathway to restore translation in non-permissive cells, and that SV40 large T antigen has a similar functional role, but acts downstream of the site of *ICP* 34.5 interaction (eIF2alpha) in the pathway. Study of this CV-1/COS-1 system should allow further clarification of the virus-host interactions that underlie the restricted replication of HSV-1 *ICP* 34.5 gene null mutants.

Chemical Name: *ICP* 34.5 protein; (Viral Proteins

10/3,K/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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09152944 97325813

Treatment of experimental subcutaneous human melanoma with a replication-restricted *herpes* *simplex* *virus* mutant.

Randazzo BP; Bhat MG; Kesari S; Fraser NW; Brown SM

The Wistar Institute, Department of Dermatology, University of Pennsylvania Medical System, Philadelphia 19104, USA.

Journal of investigative dermatology (UNITED STATES) Jun 1997, 108 (6) p933-7, ISSN 0022-202X Journal Code: IHZ

Contract/Grant No.: 1K08CA65839, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Treatment of experimental subcutaneous human melanoma with a replication-restricted *herpes* *simplex* *virus* mutant.

... melanoma. In this report, we show that HSV-1716, an HSV-1 mutant

lacking both copies of the gene coding-infected cell protein 34.5 (*ICP* 34.5), can effectively treat experimental subcutaneous human melanoma in mice. In vitro, HSV-1716 replicated in all 26 human melanoma cell lines tested, efficiently...

... preformed subcutaneous human melanoma nodules in SCID mice and caused complete regression of some tumors. This work expands the potential scope of HSV-1-based *cancer* therapy.

10/3,K/5 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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08847052 96388219

Selective vulnerability of mouse CNS neurons to latent infection with a neuroattenuated *herpes* *simplex* *virus*-1.

Kesari S; Lee VM; Brown SM; Trojanowski JQ; Fraser NW

Wistar Institute, University of Pennsylvania School of Medicine, Philadelphia 19104, USA.

Journal of neuroscience (UNITED STATES) Sep 15 1996, 16 (18) p5644-53, ISSN 0270-6474 Journal Code: JDF

Contract/Grant No.: NS29390, NS, NINDS; MH10915, MH, NIMH; CA-36245, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Selective vulnerability of mouse CNS neurons to latent infection with a neuroattenuated *herpes* *simplex* *virus*-1.

Herpes simplex viruses that lack ICP34.5 are neuroattenuated and are presently being considered for *cancer* and gene therapy in the nervous system. Previously, we documented the focal presence of the latency-associated transcripts (LATs) in the hippocampi of immunocompromised mice...

Chemical Name: *ICP* 34.5 protein; (Viral Proteins

10/3,K/6 (Item 6 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

06923590 91340446

Reactivity against *herpes* *simplex* *virus* in patients with head and neck *cancer*.

Larsson PA; Edstrom S; Westin T; Nordkvist A; Hirsch JM; Vahlne A

Department of Clinical Virology, University of Goteborg, Sweden.

International journal of cancer. Journal international du cancer (UNITED STATES) Aug 19 1991, 49 (1) p14-8, ISSN 0020-7136 Journal Code: GQU

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Reactivity against *herpes* *simplex* *virus* in patients with head and neck *cancer*.

The relation between *herpes* *simplex* *virus* (HSV) and head and neck *cancer* was examined. A total of ninety patients were analyzed for IgG antibodies against HSV. Antibody titers were established with an enzyme-linked immunosorbent assay and...

... lower limbs, a disease also closely related to heavy tobacco consumption. Prevalence of antibodies against HSV was around 90% and did not differ significantly between *cancer* patients and controls, but antibody titers against HSV were significantly higher in the *cancer* patients. The *cancer* patients also reacted more constantly (80%) in Western blot analysis against the early immediate protein, *ICP*-4, than controls (50%). This suggests a different course of an earlier herpetic infection in these patients with a prolonged exposure to early immediate

HSV-proteins which may related to an increased risk developing head and neck *cancer* . We propose that heavy smoking may contribute to this phenomenon.

10/3,K/7 (Item 7 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
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06065129 88080230

Monoclonal antibody to HSV2 protein as an immunodiagnostic marker in cervical *cancer*.

Costa S; D'Errico A; Grigioni WF; Orlandi C; Smith CC; Mancini AM; Aurelian L

Departments of Obstetrics and Gynecology, University of Bologna Medical School, Italy.

Cancer detection and prevention. Supplement (UNITED STATES) 1987, 1 p189-205, ISSN 1043-6995 Journal Code: CDA

Contract/Grant No.: CA-39691, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Monoclonal antibody to HSV2 protein as an immunodiagnostic marker in cervical *cancer*.

... designed to evaluate the possible use of monoclonal antibodies (mAbs) as diagnostic adjuncts to exfoliative cytology and tissue sections in intraepithelial (CIN) and invasive cervical *cancer* . Specimens were collected from 42 patients with various degrees of CIN, 15 patients with invasive *cancer* and two patients with condylomatous changes only. mAb H17, that recognizes a *herpes* *simplex* *virus* protein (*ICP*) representing a component of the viral ribonucleotide reductase, stained atypical exfoliated cells from 55% of patients with mild dysplasia and 100% of those with more...

... 5 +/- 2.7%, 67.9 +/- 8.1%, 81.4 +/- 10.1%, and 85.6 +/- 2.0% for mild, moderate, and marked dysplasia, CIS, and invasive *cancer*, respectively). Only a very small proportion of atypical cells from only two patients stained with a mAb to another *herpes* *simplex* *virus* protein (gA/B). Normal squamous, metaplastic, inflammatory, or koilocytotic cells did not stain with the mAbs. Of the 15 cases examined by cryostatic fresh sections with immunohistochemical techniques, only one case of invasive *cancer* did not stain with mAb anti-*ICP*, and all controls were negative. The high specificity and sensitivity of MABH17 suggests that it may be a useful diagnostic/prognostic marker in CIN.

10/3,K/8 (Item 8 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
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06031129 86142664

Immunological reactivity of human sera with individual herpes simplex proteins: a comparative study of sera from patients with preinvasive or invasive cervical *cancer* and from controls.

Teglbjaerg CS; Feldborg R; Norrild B

Journal of medical virology (UNITED STATES) Feb 1986, 18 (2) p169-80, ISSN 0146-6615 Journal Code: I9N

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Immunological reactivity of human sera with individual herpes simplex proteins: a comparative study of sera from patients with preinvasive or invasive cervical *cancer* and from controls.

Forty-three human sera collected from patients with preinvasive or invasive cervical carcinoma were analyzed for their repertoire of *herpes* *simplex* *virus* (HSV) specific antibodies reactive with individual viral

HSV-1 and HSV-2 protein. The reactivity was compared to that of sera from 27 control persons...

...the infected cell proteins was precipitable by the human sera. The major proteins identified in the polyacrylamide gels were the glycoproteins B and D, the *ICP*-5 and *ICP*-8. There was no difference between the results obtained with patients and control sera. Immunoblot analysis showed that a different subset of HSV proteins reacted...

Chemical Name: glycoprotein B, *herpes* *simplex* *virus* type 2; (glycoprotein B, type 1 *herpes* *simplex* *virus*; (glycoprotein D-
herpes *simplex* *virus* type 2; (glycoprotein D, *herpes* *simplex*
virus type 1; (*herpes* *simplex* *virus* type 1 protein ICP8;
(Antibodies, Viral; (Capsid; (Viral Envelope Proteins; (Viral Proteins

10/3,K/9 (Item 9 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

05804893 86144922

Examination of oral *cancer* tissue for the presence of the proteins
ICP 4, *ICP* 5, *ICP* 6, *ICP* 8, and gB of *herpes* *simplex* *virus*
type 1.

Shillitoe EJ; Hwang CB; Silverman S Jr; Greenspan JS

Journal of the National Cancer Institute (UNITED STATES) Mar 1986, 76
(3) p371-4, ISSN 0027-8874 Journal Code: J9J

Contract/Grant No.: DE-07008, DE, NIDCR; DE-00135, DE, NIDCR

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Examination of oral *cancer* tissue for the presence of the proteins
ICP 4, *ICP* 5, *ICP* 6, *ICP* 8, and gB of *herpes* *simplex* *virus*
type 1.

Although patients with oral *cancer* have increased levels of antibody to
herpes *simplex* *virus* type 1, the origin of the antigenic stimulation
remains unknown. We have therefore looked for proteins of herpes simplex in
oral squamous cell carcinomas by staining frozen sections with monoclonal
antibodies to the proteins *ICP* 4, *ICP* 5, *ICP* 6, *ICP* 8, and gB. No
staining was seen of the tumor cells of any of 11 oral *cancer* cases or of
the epithelium of 29 other oral lesions, which included cases of
leukoplakia, lichen planus, and aphthous ulcers. Frequent staining of mast
cells was seen in the connective tissue associated with oral *cancer* when
ascitic fluid was used as the source of monoclonal antibody, but such
staining was not seen when the precipitated IgG fraction was used.

Chemical Name: glycoprotein B, type 1 *herpes* *simplex* *virus*; (
herpes *simplex* *virus* type 1 protein ICP8; (Antibodies, Monoclonal;
(Antigens, Viral; (Viral Proteins

10/3,K/10 (Item 10 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

04369195 84129685

Expression and cellular compartmentalization of a *herpes* *simplex*
virus type 2 protein (*ICP* 10) in productively infected and cervical
tumor cells.

Aurelian L; Smith CC; Klacsman KT; Gupta PK; Frost JK

Cancer investigation (UNITED STATES) 1983, 1 (4) p301-13, ISSN
0735-7907 Journal Code: CAI

Contract/Grant No.: CA-16043, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Expression and cellular compartmentalization of a *herpes* *simplex*
virus type 2 protein (*ICP* 10) in productively infected and cervical

tumor cells.

Antiserum to *ICP* 10, a *herpes* *simplex* *virus* type 2 (HSV-2) protein that is expressed in cells neoplastically transformed by viral DNA sequences within the Bgl II/Hpa I CD fragment, specifically precipitates the *ICP* 10 protein from HSV-2 infected cells and stains cells infected with HSV-2 for 4 to 16 hrs by indirect immunofluorescence. At 4 hr...

... the staining is primarily perinuclear, while at 16 hr p.i., it is cytoplasmic and intranuclear. Compartmentalization studies indicate that the 35S-[L]-methionine labeled *ICP* 10 is detectable in both the cytoplasmic and nuclear fractions early and late in infection. However, in its phosphorylated form, *ICP* 10 is undetectable in the nuclear fraction late in the viral reproductive cycle. Anti-*ICP* 10 serum stains a high (75%-83%) proportion of cervical tissue with pathological findings of dysplasia or carcinoma, as well as atypical exfoliated cells from these patients. Cervical tumor tissue from 4 of 12 patients also stains with antiserum to another purified viral protein complex designated *ICP* 12/14. In the majority of atypical cells with mild or moderate changes, *ICP* 10 localizes in the cytoplasm, while the majority of atypical cells with severe changes also display nuclear staining with anti-*ICP* 10 serum. While exfoliated atypical cells from 60% of patients with dysplasia are positive for *ICP* 10, those from only one half of these patients stain also with anti-*ICP* 12/14 serum and this staining is strictly cytoplasmic. Atypical cells from three patients in these series stain with the anti-HSV-2 serum but are negative for both *ICP* 10 and *ICP* 12/14. Exfoliated atypical cells from patients with CIS or invasive *cancer* stain equally well with all three antisera.

Chemical Name: Antigens, Viral, Tumor; (*ICP* 10-AG-4 antigen; (Viral Proteins

10/3,K/11 (Item 11 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

04314647 81084404

An evaluation of *herpes* *simplex* *virus* antigenic markers in the study of established and developing cervical neoplasia.

Smith CC; Aurelian L; Gupta PK; Frost JK; Rosenshein NB; Klacsmann K; Geddes S

Analytical and quantitative cytology (UNITED STATES) Jun 1980, 2 (2) p131-43, ISSN 0190-0471 Journal Code: 495

Contract/Grant No.: 74096-35; 14341

Languages: ENGLISH

Document type: JOURNAL ARTICLE

An evaluation of *herpes* *simplex* *virus* antigenic markers in the study of established and developing cervical neoplasia.

...cervical cells in indirect immunofluorescence. These observations have been confirmed and extended. Antisera were prepared against the two protein components of pure AG-e, designated *ICP* 12 (M. W. = 140,000) and *ICP* 14 (M. W. = 130,000), and were purified to radiochemical homogeneity by SDS-acrylamide gel electrophoresis. The antisera reacted as well as antiserum to pure...

... HSV-2-(G)-infected cells, and their reactivity was adsorbed with pelleted HSV-2 (G) virions. Unlike antiserum to pure AG-e, the antisera to *ICP* 12 and *ICP* 14 were nonreactive in immunodiffusion, and only antiserum to *ICP* 12 showed complement fixation with soluble viral antigenic mixtures. Antisera to pure AG-e, *ICP* 12 and *ICP* 14 specifically stained exfoliated cervical cells from patients with herpetic cervicitis and atypical cells from patients with atypia, carcinoma in situ (CIS) or invasive *cancer*. However, both the number of patients with a positive response and the number of staining atypical cells were greater with antiserum to pure AG-e than with antisera to *ICP* 12 or *ICP* 14, suggesting that AG-e is a superior marker. Cells staining with antiserum to

pure AG-e, individually identified, were classified as atypia (mild to marked), CIS or *cancer*. The ability of the antiserum to pure AG-e to identify atypical cervical cells was compared to cytopathologic screening in a blind study of 26...

10/3,K/12 (Item 12 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

03769841 82001924

Viruses and gynecologic *cancers*: herpesvirus protein (*ICP* 10/AG-4), a cervical tumor antigen that fulfills the criteria for a marker of carcinogenicity.

Aurelian L; Kessler II; Rosenshein NB; Barbour G

Cancer (UNITED STATES) Jul 15 1981, 48 (2 Suppl) p455-71, ISSN 0008-543X Journal Code: CLZ

Contract/Grant No.: CA 25019, CA, NCI; CA 16043, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW

Viruses and gynecologic *cancers*: herpesvirus protein (*ICP* 10/AG-4), a cervical tumor antigen that fulfills the criteria for a marker of carcinogenicity.

The studies associating infections by *herpes* *simplex* *virus* type 2 (HSV-2) with carcinoma of the human uterine cervix are reviewed within the context of three possible interpretations. Extensive seroepidemiologic evidence indicates that...

... risk factor for CIS. In vitro transformation data supporting the oncogenic potential of the virus are summarized, and evidence is presented that an antigen designated *ICP* 10/AG-4 is a valid candidate for the role of a virus-encoded protein involved in the maintenance of a transformed phenotype. Antibody to...

... a correlation was observed between antibody to AG-4 and cervical carcinoma. Thus, whereas only 11.7% of controls and 7.7% of patients with *cancer* at other sites are AG-4 seropositive, as many as 49.6% of patients with dysplasia, 63% of those with CIS, and 72.7% of those with invasive *cancer* are positive for the antibody. Antibody to AG-4 is related to tumor growth. This is evidence by 1) retrospective analyses demonstrating that the proportion...

... 2) prospective study of 209 patients demonstrating loss of antibody in patients with a successfully removed tumor mass and reappearance of AG-4 antibody in *cancer* recurrence. The possible use of AG-4 (or its antibody) in the diagnosis and monitoring of cervical carcinoma and its treatment is discussed.

Chemical Name: Antibodies, Neoplasm; (Antibodies, Viral; (Antigens, Neoplasm; (Antigens, Viral; (*ICP* 10-AG-4 antigen; (Viral Proteins

10/3,K/13 (Item 1 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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12532018 BIOSIS NO.: 200000285520

Toxicity evaluation of replication-competent *herpes* *simplex* *virus* (*ICP* 34.5 null mutant 1716) in patients with recurrent malignant glioma.

AUTHOR: Rampling R; Cruickshank G; Papanastassiou V; Nicoll J; Hadley D;

Brennan D; Petty R; MacLean A; Harland J; McKie E; Mabbs R; Brown M

AUTHOR ADDRESS: (a) Beatson Oncology Centre, Western Infirmary, Glasgow, G11

6NT**UK

2000

JOURNAL: Gene Therapy 7 (10):p859-866 May, 2000

MEDIUM: print.

ISSN: 0969-7128
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

Toxicity evaluation of replication-competent *herpes* *simplex* *virus* (*ICP* 34.5 null mutant 1716) in patients with recurrent malignant glioma.

ABSTRACT: The *herpes* *simplex* *virus* (HSV) ICP34.5 null mutant 1716 replicates selectively in actively dividing cells and has been proposed as a potential treatment for *cancer*, particularly brain tumours. We present a clinical study to evaluate the safety of 1716 in patients with relapsed malignant glioma. Following intratumoural inoculation of doses

...

DESCRIPTORS:

ORGANISMS: *herpes* *simplex* *virus* (Herpesviridae...

10/3,K/14 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

12447325 BIOSIS NO.: 200000200827

Multi-attenuated *herpes* *simplex* *virus*-1 mutant G207 exerts cytotoxicity against epithelial ovarian *cancer* but not normal mesothelium and is suitable for intraperitoneal oncolytic therapy.

AUTHOR: Coukos George; Makrigiannakis Antonis; Montas Sacha; Kaiser Larry R ; Toyozumi Takane; Benjamin Ivor; Albelda Steven M; Rubin Stephen C; Molnar-Kimber Katherine L(a)

AUTHOR ADDRESS: (a)Department of Pathology, University of Pennsylvania, 422 Curie Boulevard, 411 Stellar Chance, Philadelphia, PA, 19104-6100**USA
2000

JOURNAL: Cancer Gene Therapy 7 (2):p275-283 Feb., 2000

ISSN: 0929-1903

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

Multi-attenuated *herpes* *simplex* *virus*-1 mutant G207 exerts cytotoxicity against epithelial ovarian *cancer* but not normal mesothelium and is suitable for intraperitoneal oncolytic therapy.

ABSTRACT: Recombinant strains of *herpes* *simplex* *virus*-1 (HSV-1) harboring mutations in the infected cell product (*ICP*)34.5 region lose their neurovirulence and replicate more efficiently in dividing tumor cells than stationary cells, becoming replication-selective oncolytic agents. Additional mutation of...

...cells, enhancing tumor selectivity. The present study investigated the effect of HSV-G207, a recombinant HSV-1 lacking ICP34.5 and ICP6, against epithelial ovarian *cancer* (EOC) in vitro and in vivo in a mouse xenograft model. To assess the selectivity of multimutated HSV-G207 against malignant cells, HSV-G207 and...

DESCRIPTORS:

...ORGANISMS: human epithelial ovarian *cancer* cell line, in-vivo xenograft study...

...*herpes* *simplex* *virus* type 1 (Herpesviridae

10/3,K/15 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2000 Elsevier Science B.V. All rts. reserv.

06775292 EMBASE No: 1997056786

Use of a 'replication-restricted' herpes virus to treat experimental human malignant mesothelioma

Kucharczuk J.C.; Randazzo B.; Chang M.Y.; Amin K.M.; Elshami A.A.; Sterman D.H.; Rizk N.P.; Molnar-Kimber K.L.; Brown S.M.; MacLean A.R.; Litzky L.A.; Fraser N.W.; Albelda S.M.; Kaiser L.R.

L.R. Kaiser, Division of Thoracic Surgery, 4 Silverstein, Univ. of Pennsylvania Medical Center, 3400 Spruce Street, Philadelphia, PA 19104 United States

Cancer Research (CANCER RES.) (United States) 1997, 57/3 (466-471)

CODEN: CNREA ISSN: 0008-5472

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 31

...and lyse a wide range of cell types. In this report, we show that HSV-1716, a mutant lacking both copies of the gene coding *ICP*-34.5, can effectively treat a localized i.p. malignancy. Human malignant mesothelioma cells supported the growth of HSV-1716 and were efficiently lysed in...

MEDICAL DESCRIPTORS:

****herpes* *simplex* *virus*; *malignant mesothelioma--therapy--th; *virus replication**

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

016 *Cancer*

022 Human Genetics

10/3,K/16 (Item 2 from file: 73)

DIALOG(R) File 73:EMBASE

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05052994 EMBASE No: 1992193210

Expression of the large subunit of *herpes* *simplex* *virus* type 2 ribonucleotide reductase (ICP10) is required for virus growth and neoplastic transformation

Smith C.C.; Kulka M.; Wymer J.P.; Chung T.D.; Aurelian L.

Department of Pharmacology, The University of Maryland, School of Medicine, Baltimore, MD 21201 United States

Journal of General Virology (J. GEN. VIROL.) (United Kingdom) 1992, 73/6 (1417-1428)

CODEN: JGVIA ISSN: 0022-1317

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Expression of the large subunit of *herpes* *simplex* *virus* type 2 ribonucleotide reductase (ICP10) is required for virus growth and neoplastic transformation

The amino-terminal domain of the large subunit of *herpes* *simplex* *virus* type 2 (HSV-2) ribonucleotide reductase (*ICP* 10) has protein kinase (PK) activity and properties similar to those of growth factor receptor kinases which can be activated to transforming potential. DNA sequences...

...domain cause neoplastic transformation of immortalized cells. The studies described in this report used a spontaneous mutant (ts5-152) temperature-sensitive for the synthesis of *ICP* 10 and the previously described *ICP* 10 expression vectors to study the role of ICP10 expression in HSV-2 growth and neoplastic potential. The titres of the ts5-152 mutant are...

...at 39degreeC compared to 34degreeC after 12 h post-infection. The efficiency of plaquing is 0.003. The growth defect at 39degreeC correlates with decreased *ICP* 10 synthesis. Sequence analysis of the PK domain of the ts5-152 ICP10 gene identified a pair of frameshift mutations resulting in a 19 amino...

MEDICAL DESCRIPTORS:

*gene expression; **herpes* *simplex* *virus* 2; *virogenesis; *virus cell transformation

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
016 *Cancer*
029 Clinical and Experimental Biochemistry

10/3,K/17 (Item 3 from file: 73)

DIALOG(R)File 73:EMBASE

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04252693 EMBASE No: 1990135236

Effect of snuff extract on the replication and synthesis of viral DNA and proteins in cells infected with *herpes* *simplex* *virus*

Oh J.S.; Cherrick H.M.; Park N.-H.

School of Dentistry, Dental Research Institute, Los Angeles, CA United States

Journal of Oral and Maxillofacial Surgery (J. ORAL MAXILLOFAC. SURG.) (United States) 1990, 48/4 (373-379)

CODEN: JOMSD ISSN: 0278-2391

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Effect of snuff extract on the replication and synthesis of viral DNA and proteins in cells infected with *herpes* *simplex* *virus*

The water-extractable component of snuff (snuff extract) inhibits the replication of *herpes* *simplex* *virus* (HSV) by suppressing the synthesis of viral DNA. This process probably causes HSV to be oncogenic. To further understand the mechanism of inhibitory action of...

...proteins. The syntheses of ICP4, a viral alpha-protein, and ICP8, a beta-protein, were not generally reduced by noncytotoxic concentrations of snuff extract (where *ICP* = infected cell polypeptide). However, snuff extracts significantly inhibited the production of *ICP* gC (glycoprotein C), a gammaINF 2-protein, and the inhibition was in a concentration-dependent fashion: the higher the concentration of snuff extracts, the greater...

MEDICAL DESCRIPTORS:

**herpes* *simplex* *virus*; *oropharynx *cancer*--etiology--et; *sniffing; *virus

10/3,K/18 (Item 4 from file: 73)

DIALOG(R)File 73:EMBASE

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03255303 EMBASE No: 1986052880

The cervical tumor-associated antigen (*ICP*-10/AG-4) is encoded by the transforming region of the genome of *herpes* *simplex* *virus* type 2

Iwasaka T.; Smith C.; Aurellian L.; Ts'o P.O.P.

Division of Biophysics, The Johns Hopkins Medical Institutions, Baltimore, MD 21205 United States

Japanese Journal of Cancer Research (JPN. J. CANCER RES.) (Japan) 1985, 76/10 (946-958)

CODEN: JJCRE

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

The cervical tumor-associated antigen (*ICP*-10/AG-4) is encoded by the transforming region of the genome of *herpes* *simplex* *virus* type 2

BglIII fragment C mapping between 0.416 and 0.580 map units (mu) on the *herpes* *simplex* *virus* type 2 (HSV-2) genome was used for in vitro

translation to identify proteins encoded on this fragment DNA homologous to the BglIII C fragment...

...species translated in vitro from mRNA hybrid-selected from cells arrested in the 'early' (beta) phase of viral protein synthesis. It is precipitated by anti-**ICP*-10* serum and by monoclonal antibody 48S (previously shown to precipitate the HSV-induced ribonucleotide reductase). The 48S antibody competes with the anti-**ICP*-10* serum for the 144K protein. Furthermore the in vitro translated 144K protein is structurally similar to **ICP*-10*, an HSV-2-infected cell protein that is antigenically identical to AG-4, the cervical tumor-associated antigen.

MEDICAL DESCRIPTORS:

***herpes* *simplex* *virus* 2; *uterine cervix *cancer*; *virus genome; *virus infection**

SECTION HEADINGS:

016 *Cancer*
026 Immunology, Serology and Transplantation
047 Virology

10/3,K/19 (Item 5 from file: 73)

DIALOG(R)File 73:EMBASE

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03161571 EMBASE No: 1986139148

Multistep transformation by defined fragments of *herpes* *simplex*

***virus* type 2 DNA: Oncogenic region and its gene product**

Hayashi Y.; Iwasaka T.; Smith C.C.; et al.

Division of Biophysics, The Johns Hopkins Medical Institutions,
Baltimore, MD 21205 United States

Proceedings of the National Academy of Sciences of the United States of
America (PROC. NATL. ACAD. SCI. U. S. A.) (United States) 1985, 82/24
(8493-8497)

CODEN: PNASA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

Multistep transformation by defined fragments of *herpes* *simplex*

***virus* type 2 DNA: Oncogenic region and its gene product**

Diploid Syrian hamster embryo cells transfected with Bgl II C fragment of **herpes* *simplex* *virus* type 2 DNA acquired a neoplastic phenotype. Cultures transfected with its left-hand 64% subclone EcoRI-HindIII fragment AE (0.419-0.525 map unit...*

...C) converted them to tumorigenicity. The 4.4-kilobase subfragment encodes a 144-kDa protein immunologically and structurally similar to an infected cell protein designated **ICP* 10*. DNA extracted from cells transformed with the 4.4-kilobase subfragment exhibited discrete hybridizing bands homologous to BamHI E fragment. Monoclonal antibody to **ICP* 10* precipitated a 144-kDa protein from the transformed cells and stained them in immunofluorescence. A tumor derivative established with the transformed cells did not...

MEDICAL DESCRIPTORS:

***herpes* *simplex* *virus* 2; *virus cell transformation**

SECTION HEADINGS:

047 Virology
016 *Cancer*
029 Clinical and Experimental Biochemistry
022 Human Genetics
005 General Pathology and Pathological Anatomy

10/3,K/20 (Item 6 from file: 73)

DIALOG(R)File 73:EMBASE

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03022328 EMBASE No: 5016294

**Interaction with nucleic acids and stimulation of the viral DNA
polymerase by the *herpes* *simplex* *virus* type 1 major DNA-binding
protein**

Ruyechan W.T.; Weir A.C.

Department of Biochemistry, Uniformed Services University of the Health
Sciences, Bethesda, MD 20814-4799 United States

Journal of Virology (J. VIROL.) (United States) 1984, 52/3 (727-733)

CODEN: JOVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

**Interaction with nucleic acids and stimulation of the viral DNA
polymerase by the *herpes* *simplex* *virus* type 1 major DNA-binding
protein**

The interaction of the *herpes* *simplex* *virus* type 1 (HSV-1) major
DNA-binding protein, infected-cell polypeptide 8 (ICP8), with nucleic acids
has been examined by a filter-binding assay and...

...to 40degreeC with a rapid loss of binding activity on incubation at
45degreeC and above. Competition binding experiments have established the
following relative affinities of *ICP* for the following nucleic acids:
single-stranded HSV-1 DNA approx. eq. bacteriophage fd DNA >
polyribadenylate >> double-stranded HSV-1 DNA approx. eq. d(pCpT...

MEDICAL DESCRIPTORS:

****herpes* *simplex* *virus* 1**

SECTION HEADINGS:

047 Virology

022 Human Genetics

016 *Cancer*

10/3,K/21 (Item 7 from file: 73)

DIALOG(R)File 73:EMBASE

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02763141 EMBASE No: 1984032100

**Characterization of post-translational products of *herpes* *simplex*
virus gene 35 proteins binding to the surfaces of full capsids but not
empty capsids**

Braun D.K.; Roizman B.; Pereira L.

The Marjorie B. Kovler Viral Oncology Laboratories, The University of
Chicago, Chicago, IL 60637 United States

Journal of Virology (J. VIROL.) (United States) 1984, 49/1 (142-153)

CODEN: JOVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

**Characterization of post-translational products of *herpes* *simplex*
virus gene 35 proteins binding to the surfaces of full capsids but not
empty capsids**

We report on the properties of a genetically and immunologically related
family of structural (gamma) polypeptides of *herpes* *simplex* *virus* 1
designated as infected cell polypeptides (*ICP*) 35. The members of this
family were identified and studied with the aid of a panel of monoclonal
antibodies exemplified by H745. This monoclonal antibody...

MEDICAL DESCRIPTORS:

virus capsid; **herpes* *simplex* *virus

SECTION HEADINGS:

047 Virology

013 Dermatology and Venereology

026 Immunology, Serology and Transplantation

016 *Cancer*

10/3,K/22 (Item 8 from file: 73)
DIALOG(R)File 73:EMBASE
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02750474 EMBASE No: 1984069433

Fine structure physical map localisations of alterations that affect cell fusion in *herpes* *simplex* *virus* type 1

Bond V.C.; Person S.
Molecular and Cell Biology Program, The Pennsylvania State University,
University Park, PA 16802 United States
Virology (VIROLOGY) (United States) 1984, 132/2 (368-376)
CODEN: VIRLA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Fine structure physical map localisations of alterations that affect cell fusion in *herpes* *simplex* *virus* type 1

Fine structure physical map locations were determined for syncytial mutants (MP, syn-20, syn-102, syn-103, and syn-105) of *Herpes* *Simplex* *Virus* type 1 (HSV-1). All except MP were derived from the KOS strain. MP contains multiple mutations, including one that leads to the loss of...

...locus determining glycoprotein C (gC) production in strain MP was also mapped, using indirect immunofluorescence, to coordinates 0.745 to 0.753. Nucleotide sequences for *ICP*-27, an immediate early or alpha protein of unknown function, are within these coordinates. Since gC production and the syn phenotype are separable by recombination...

MEDICAL DESCRIPTORS:

*gene; **herpes* *simplex* *virus* 1; *virus mutation

SECTION HEADINGS:

047 Virology
022 Human Genetics
013 Dermatology and Venereology
016 *Cancer*

10/3,K/23 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE
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02516288 EMBASE No: 1983050299

Effects of nucleoside analogues on the expression of herpes simplex type 1-induced proteins

Otto M.J.; Lee J.J.; Prusoff W.H.
Dep. Pharmacol., Yale Univ. Sch. Med., New Haven, CT 06510 United States
Antiviral Research (ANTIVIRAL RES.) (Netherlands) 1982, 2/5 (267-281)
CODEN: ARSRD
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Exposure of *herpes* *simplex* *virus* type 1 (HSV-1)-infected Vero cells to the nucleoside analogues 5-iodo-5'-amino-2,5'-dideoxyuridine (AIdUrd), 5-iodo-2'-deoxyuridine (IdUrd) or...

...there was no effect on HSV-1-induced alpha proteins but beta and gamma proteins were reduced as much as 60%. There were three exceptions: *ICP* 35 (M(r)=46,000) and *ICP* 39 (M(r)=36,000) were not reduced and *ICP* 36 (M(r)=42,000) was increased during drug treatment. Progeny virions were isolated from drug-treated infected Vero cells and were compared to progeny

MEDICAL DESCRIPTORS:

*drug efficacy; **herpes* *simplex* *virus* 1; *protein synthesis

SECTION HEADINGS:

037 Drug Literature Index

047 Virology
022 Human Genetics
016 *Cancer*

10/3,K/24 (Item 10 from file: 73)
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02348223 EMBASE No: 1983227227

The effect of cycloheximide on the accumulation and stability of functional alpha-mRNA in cells infected with *herpes* *simplex* *virus*

Fenwick M.L.; Clark J.

Dunn Sch. Pathol., Univ. Oxford, Oxford OX1 3RE United Kingdom

Journal of General Virology (J. GEN. VIROL.) (United Kingdom) 1983,
64/9 (1955-1963)

CODEN: JGVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

The effect of cycloheximide on the accumulation and stability of functional alpha-mRNA in cells infected with *herpes* *simplex* *virus*

Cells were infected with *herpes* *simplex* *virus* type 2, HSV-2(G), and incubated in the presence of cycloheximide (CX). When CX was removed and actinomycin D (Act D) added, alpha-polypeptides *ICP* 0 and *ICP* 4 were synthesized at low rates. If CX was removed without adding Act D, the rate of production of *ICP* 4 increased while that of *ICP* 0 remained constant. In cells treated with azetidine to enhance the production of *ICP* 4 and 0, accumulation of functional mRNA for *ICP* 4 (determined indirectly by translation in vivo) was reduced by concentration of CX between 0.5 and 5.0 mug/ml, whereas mRNA for *ICP* 0 was unaffected by 50 mug/ml CX. CX apparently either inhibits the synthesis of *ICP* 4 mRNA or enhances its inactivation without affecting the production or degradation of *ICP* 0 mRNA. The accumulation of *ICP* 4 or *ICP* 0 mRNA of HSV-1(F) was unaffected by CX. The low levels of *ICP* 4 and *ICP* 0 mRNAs of HSV-2(G) that accumulated in the presence of CX disappeared rapidly after adding Act D, in contrast to those of HSV-1(F) which were stable. The *ICP* 4 mRNA of HSV-2(G) was stable, however, if made without CX or if in mixed infection with HSV-1(F) in the presence of CX. It is suggested that rapid inactivation may account for the low level of accumulation of functional *ICP* 4 and *ICP* 0 mRNAs of HSV-2(G) in the presence of CX, and that *ICP* 4 mRNA is protected by a protein made soon after normal infection. Such a protein may be carried in the virion of HSV-1(F).

MEDICAL DESCRIPTORS:

*drug efficacy; **herpes* *simplex* *virus* 2; **herpes* *simplex* *virus* 1; *kidney cell; *monkey; *virus infection

SECTION HEADINGS:

037 Drug Literature Index

016 *Cancer*

013 Dermatology and Venereology

047 Virology

10/3,K/25 (Item 11 from file: 73)
DIALOG(R) File 73:EMBASE
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02324763 EMBASE No: 1983255924

Expression and cellular compartmentalization of a herpes simplex virus type 2 protein (*ICP* 10) in productively infected and cervical tumor cells

Aurelian L.; Smith C.C.; Klacsman K.T.; et al.

Dep. Biochem., Johns Hopkins Med. Inst., Baltimore, MD United States

Cancer Investigation (CANCER INVEST.) (United States) 1983, 1/4

(301-313)

CODEN: CINVD

Expression and cellular compartmentalization of a herpes simplex virus type 2 protein (*ICP* 10) in productively infected and cervical tumor cells

Antiserum to *ICP* 10, a *herpes* *simplex* *virus* type 2 (HSV-2) protein that is expressed in cells neoplastically transformed by viral DNA sequences within the Bgl II/Hpa I CD fragment, specifically precipitates the *ICP* 10 protein from HSV-2 infected cells and stains cells infected with HSV-2 for 4 to 16 hrs by indirect immunofluorescence. At 4 hr...

...is primarily perinuclear, while at 16 hr p.i., it is cytoplasmic and intranuclear. Compartmentalization studies indicate that the sup 3sup 5S-(L)-methionine labeled *ICP* 10 is detectable in both the cytoplasmic and nuclear fractions early and late in infection. However, in its phosphorylated form, *ICP* 10 is undetectable in the nuclear fraction late in the viral reproductive cycle. Anti-*ICP* 10 serum stains a high (75%-83%) proportion of cervical tissue with pathological findings of dysplasia or carcinoma, as well as atypical exfoliated cells from these patients. Cervical tumor tissue from 4 of 12 patients also stains with antiserum to another purified viral protein complex designed *ICP* 12/14. In the majority of atypical cells with mild or moderate changes, *ICP* 10 localizes in the cytoplasm, while the majority of atypical cells with severe changes also display nuclear staining with anti-*ICP* 10 serum. While exfoliated atypical cells from 60% of patients with dysplasia are positive for *ICP* 10, those from only one half of these patients stain also with anti-*ICP* 12/14 serum and this staining is strictly cytoplasmic. Atypical cells from their patients in these series stain with the anti-HSV-2 serum but are negative for both *ICP* 10 and *ICP* 12/14. Exfoliated atypical cells from patients with CIS or invasive *cancer* stain equally well with all three antisera.

MEDICAL DESCRIPTORS:

**cancer* cell; *carcinoma in situ; *dysplasia; **herpes* *simplex* *virus* 2; *uterine cervix

SECTION HEADINGS:

- 016 *Cancer*
- 047 Virology
- 026 Immunology, Serology and Transplantation
- 010 Obstetrics and Gynecology
- 023 Nuclear Medicine
- 013 Dermatology and Venereology

10/3,K/26 (Item 12 from file: 73)

DIALOG(R)File 73:EMBASE

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02294479 EMBASE No: 1982025640

'The herpesvirus hypothesis' - Are Koch's postulates satisfied?

Aurelian L.; Manak M.M.; McKinlay M.; et al.

Dept. Comparative Med., Johns Hopkins Med. Inst., Baltimore, MD 21205
United States

Gynecologic Oncology (GYNECOL. ONCOL.) (United States) 1981, 12/2 II
(S56-S87)

CODEN: GYNOA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

The evidence associating *herpes* *simplex* *virus* type 2 (HSV-2) with squamous cervical carcinoma is critically reviewed. Thirteen criteria for a causal relationship between a virus and a human *cancer* are listed and evidence is presented demonstrating that in the case of HSV-2 and cervical *cancer* these have been fulfilled. The original Koch postulates are discussed from the standpoint of modern concepts of virology. In this context, emphasis is placed on the identification in cervical tumor cells

of the viral protein *I 10/AG-4. This protein is expressed in HSV-2-transformed hamster cells and its expression correlates well with the oncogenic potential of the transformed lines. Consistent with these findings, the expression of *ICP* 10/AG-4 in cervical cells and the prevalence of the specific antibody that it induces, reflect the progression of the cervical tumor.

MEDICAL DESCRIPTORS:

****herpes* *simplex* *virus* 2; *uterine cervix carcinoma**

SECTION HEADINGS:

010 Obstetrics and Gynecology

016 *Cancer*

047 Virology

10/3,K/27 (Item 13 from file: 73)

DIALOG(R) File 73:EMBASE

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02291952 EMBASE No: 1982023113

Monoclonal antibodies to *herpes* *simplex* *virus* type 1 proteins, including the immediate-early protein *ICP* 4

Showalter S.D.; Zweig M.; Hampar B.

Lab. Molec. Virol., Nat. Cancer Inst., Frederick, MD 21701 United States

Infection and Immunity (INFECT. IMMUN.) (United States) 1981, 34/3 (684-692)

CODEN: INFIB

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

Monoclonal antibodies to *herpes* *simplex* *virus* type 1 proteins, including the immediate-early protein *ICP* 4

Monoclonal antibodies were prepared against *herpes* *simplex* *virus* type 1 (strain 14012) by two immunization procedures. Procedure A utilized infectious virus propagated in mouse cells, and procedure B utilized mouse cells infected with *herpes* *simplex* *virus* in the presence of cycloheximide and harvested 1 h after removal of the inhibitor. A total of 52 monoclonal antibodies were obtained against 10 *herpes* *simplex* *virus* proteins, including four glycosylated proteins (a 110,000-molecular-weight protein, gB, gC, and gD) and six nonglycosylated proteins (a 68,000-molecular-weight protein, *ICP* 9, *ICP* 6, *ICP* 5, and the immediate-early *ICP* 4). The antibodies were assayed against *herpes* *simplex* *virus* types 1 and 2 by sodium dodecyl sulfate-polyacrylamide gel electrophoresis of radioimmunoprecipitates, immunofluorescence, and neutralization. Using the reagents prepared, we concluded that the 110,000-molecular-weight protein, gD, *ICP* 9, *ICP* 9, *ICP* 6, and the 68,000-molecular-weight protein express both type specific and cross-reactive antigenic determinants. In contrast, nine antibodies against gB all cross-reacted with *herpes* *simplex* *virus* type 2, whereas eight antibodies to gC all reacted type specifically.

MEDICAL DESCRIPTORS:

****herpes* *simplex* *virus* 1**

SECTION HEADINGS:

047 Virology

026 Immunology, Serology and Transplantation

016 *Cancer*

10/3,K/28 (Item 14 from file: 73)

DIALOG(R) File 73:EMBASE

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02240655 EMBASE No: 1982033816

Focus formation and neoplastic transformation by *herpes* *simplex* *virus* type 2 inactivated intracellularly by 5-bromo-2'-deoxyuridine and near UV light

Manak M.M.; Aurelian L. ¹'s'o P.O.P.
Dept. Comp. Med., Johns Hopkins Med. Inst., Baltimore, MD 21205 United States
Journal of Virology (J. VIROL.) (United States) 1981, 40/1 (289-300)
CODEN: JOVIA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

**Focus formation and neoplastic transformation by *herpes* *simplex*
virus type 2 inactivated intracellularly by 5-bromo-2'-deoxyuridine and
near UV light**

The induction of focus formation in low serum and of neoplastic transformation of Syrian hamster embryo cells was examined after the expression of *herpes* *simplex* *virus* type 2 functions. Syrian hamster embryo cells infected at a high multiplicity (5 PFU/cell) with 5-bromo-2'-deoxyuridine-labeled *herpes* *simplex* *virus* type 2 (11% substitution of thymidine residues) were exposed to near UV light irradiation at various times postinfection. This procedure specifically inactivated the viral genome...

...state, including reduced serum requirement, anchorage-independent growth, and tumorigenicity. They retained viral DNA sequences and, even at relatively late passage, expressed viral antigens, including *ICP* 10.

MEDICAL DESCRIPTORS:

*carcinogenesis; *cell transformation; **herpes* *simplex* *virus* 2; *ultraviolet radiation

SECTION HEADINGS:

037 Drug Literature Index
047 Virology
016 *Cancer*

10/3,K/29 (Item 15 from file: 73)
DIALOG(R)File 73:EMBASE
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01775391 EMBASE No: 1980017944

**Proteins of herpesvirus type 2. V. Isolation and immunologic
characterization of two viral proteins in a virus-specific antigenic
fraction**

Smith C.C.; Aurelian L.
Div. Comp. Med., Dept. Biochem. Biophys., Johns Hopkins Med. Inst.,
Baltimore, Md. 21205 United States
Virology (VIROLOGY) (United States) 1979, 98/1 (255-260)
CODEN: VIRLA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

...shown that 'crude' AG-e, a type-common HSV antigen, induces an antigen-driven cell-mediated immune response in patients with HSV cervicitis or cervix *cancer*. Anti-crude AG-e sera give rise in crossed immunoelectrophoresis against total viral soluble antigenic mixtures (HSV-2(G) SAM) to one precipitin band ('pure' AG-e). Pure AG-e is immunologically identical to crude AG-e as determined by immunodiffusion and it resolves into two infected cell proteins, *ICP* 12 (MW:140,000) and *ICP* 14 (MW:130,000) upon SDS-acrylamide gel electrophoresis. *ICP* 12 and *ICP* 14 are purified to radiochemical homogeneity by SDS-acrylamide gel electrophoresis. Antisera to *ICP* 12 react with HSV-2 (G) in crossed immunoelectrophoresis and both anti-*ICP* 12 and *ICP* 14 sera stain HSV-2(G) infected cells. *ICP* 12 and *ICP* 14 appear to be envelope proteins as evidenced by: (i) the absorption of the reactivity of anti-*ICP* 12 and *ICP* 14 sera with HSV-2 (G) virions but not with 'mock-virus' preparations, (ii) the ability of the anti-*ICP* 12 and *ICP* 14 sera to neutralize HSV-2 in presence of anti-IgG, and (iii) the resolution of a protein with the relative mobility of *ICP* 14 in virions the surface of

which was iodinated with lactoperoxidase.

MEDICAL DESCRIPTORS:

**herpes* *simplex* *virus* 2

10/3,K/30 (Item 16 from file: 73)
DIALOG(R)File 73:EMBASE
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01749185 EMBASE No: 1980054937

Phosphorylation of a ribosomal protein and of virus-specific proteins in cells infected with *herpes* *simplex* *virus*

Fenwick M.L.; Walker M.J.

Dunn Sch. Pathol., Univ. Oxford OX1 3RE United Kingdom

Journal of General Virology (J. GEN. VIROL.) (United Kingdom) 1979,
45/2 (397-405)

CODEN: JGVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

Phosphorylation of a ribosomal protein and of virus-specific proteins in cells infected with *herpes* *simplex* *virus*

In cells infected with *herpes* *simplex* *virus* a protein associated with the small subunit of ribosomes became phosphorylated. It was not detectably labelled with sup 1sup 4C-amino acids added after infection...

...DNA, did not induce phosphorylation of the 48K ribosomal protein. Therefore the phosphorylation is not responsible for the suppression of host synthesis. The alpha polypeptides *ICP* 4, 0, 22 and 27 are also phosphorylated but, in contrast to that of the ribosomal protein, phosphorylation does not depend on the synthesis of...

MEDICAL DESCRIPTORS:

*cell culture; **herpes* *simplex*; **virus* infection

SECTION HEADINGS:

047 Virology

016 *Cancer*

013 Dermatology and Venereology

10/3,K/31 (Item 17 from file: 73)
DIALOG(R)File 73:EMBASE
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01630395 EMBASE No: 1980188070

Some characteristics of an early protein (*ICP* 22) synthesized in cells infected with *herpes* *simplex* *virus*

Fenwick M.; Walker M.; Marshall L.

Dunn Sch. Pathol., Univ. Oxford, OX1 3RE United Kingdom

Journal of General Virology (J. GEN. VIROL.) (United Kingdom) 1980,
47/2 (333-341)

CODEN: JGVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

Some characteristics of an early protein (*ICP* 22) synthesized in cells infected with *herpes* *simplex* *virus*

...of apparent mol. wt. 66000 was stimulated. It was not phosphorylated and was found in the cytoplasmic fraction of cell lysates. In cells infected with *herpes* *simplex* *virus* type 1 (HSV-1) in the presence of azetidine, synthesis of cellular proteins, including polypeptide C, was suppressed and infected cell polypeptides *ICP* 4, 0, 22 and 27 (apparent mol. wt. 170000, 120000, 75000 and 60000, respectively) were made. All were phosphorylated and accumulated in the nucleus. Messenger RNA for the same four polypeptides was made in cells infected in the presence of

cycloheximide. Thus, *ICP* 22 is distinct from cellular polypeptide C and is probably a virus-specific alpha polypeptide, although it differs from alpha *ICP* 4, 0 and 27 in that its rate of synthesis does not decline rapidly when later polypeptides are produced. It is modified after synthesis in...

...steps, the second of which may require a later virus-specific polypeptide. In cells infected with HSV-2 the synthesis of a polypeptide analogous to *ICP* 22 could not be detected.

MEDICAL DESCRIPTORS:

*cell culture; **herpes* *simplex*; **virus* infection

SECTION HEADINGS:

047 Virology
029 Clinical and Experimental Biochemistry
013 Dermatology and Venereology
016 *Cancer*

10/3,K/32 (Item 18 from file: 73)
DIALOG(R)File 73:EMBASE
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01247447 EMBASE No: 1978379732

Proteins of herpesvirus type 2. III. Isolation and immunologic characterization of a large molecular weight viral protein

Strnad B.C.; Aurelian L.

Dept. Comp. Med., Johns Hopkins Univ. Sch. Med., Baltimore, Md. 21205

United States

Virology (VIROLOGY) (United States) 1978, 87/2 (401-415)

CODEN: VIRLA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

At least 47 viral proteins are synthesized in cells infected with HSV-2 (G). One of these viral proteins, *ICP* 10 (MW, 161,000), was purified by SDS-acrylamide gel electrophoresis. Protein eluted from gel segments containing *ICP* 10 and passaged on SDS-HTP columns migrates on 8.5% SDS-acrylamide gels as one protein band with the relative mobility of *ICP* 10. Antisera prepared in rabbits inoculated with *ICP* 10-containing gel segments fix complement with extracts of cells infected with HSV-2 (G) for 4 hr and stain cycloheximide and actinomycin D-treated HSV-2 (G)-infected cells which contain only early viral proteins. Furthermore, the (Fab') fragment of anti-*ICP* 10 IgG blocks complement fixation between sera from cervical carcinoma patients and the tumor-associated antigen designated AG-4, thereby demonstrating the immunologic identity of *ICP* 10 and AG-4. Previous reports from our laboratory have shown that *ICP* 10 has the same electrophoretic mobility as HSV-2 (G) virion protein VP-4. When nucleocapsids and envelope proteins are prepared and electrophoresed on SDS-acrylamide gels, a protein with the relative mobility of *ICP* 10 is found only in the envelope protein fraction. The identification of *ICP* 10 as an envelope protein is further substantiated by: (i) the ability of anti-*ICP* 10 to fix complement with either intact virions or envelope proteins solubilized from dextran-gradient-purified virions by NP-40 treatment; (ii) the absorption of the anti-*ICP* 10 reactivity with HSV-2 (G) virions but not with 'mock-virus' preparations; and (iii) the potential of anti-*ICP* 10 to 'sensitize' virions causing their neutralization in presence of complement or anti-IgG.

MEDICAL DESCRIPTORS:

**herpes* *simplex* *virus* 2; *uterine cervix carcinoma

SECTION HEADINGS:

047 Virology
016 *Cancer*
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
029 Clinical and Experimental Biochemistry

10/3,K/33 (Item 19 from file: 73)
DIALOG(R)File 73:EMBASE
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01209801 EMBASE No: 1978341375

On the association of virus proteins with the nuclei of cells infected with *herpes* *simplex* *virus*

Fenwick M.L.; Walker M.J.; Petkevich J.M.

Sir William Dunn Sch. Pathol., Oxford Univ., Oxford OX1 3RE United Kingdom

Journal of General Virology (J. GEN. VIROL.) (United Kingdom) 1978, 39/3 (519-529)

CODEN: JGVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

On the association of virus proteins with the nuclei of cells infected with *herpes* *simplex* *virus*

In cells infected with *herpes* *simplex* *virus*, HSV-1, newly synthesized polypeptides accumulated in the nucleus at different rates, which did not change during the first 6 h after infection. Canavanine, an arginine analogue, prevented the nuclear accumulation of *ICP* (infected cell polypeptides) 5 and 8, and azetidine, a proline analogue, prevented that of *ICP* 5 and 7. The transfer of polypeptides to the nucleus was inhibited at 4degreeC but not by dinitrophenol. Some of the nuclear polypeptides could be released by washing isolated nuclei with hypertonic salt solutions. *ICP* 17 was particularly sensitive to high salt treatment while *ICP* 5 and 11 were resistant. *ICP* 4b, a modified form of the alpha polypeptide *ICP* 4, was released by EDTA, and the detergent NP40 removed *ICP* 11. Treatment of nuclei with DNase selectively reduced the amount of bound alpha polypeptides *ICP* 4c (the second modified form of *ICP* 4), 0 and 27 as well as *ICP* 8 and 25. Nuclei isolated from infected or uninfected cells and incubated in labelled cytoplasmic extracts took up primarily *ICP* 8 and 32. Alpha polypeptides were taken up to a lesser extent and *ICP* 6 and 10 were excluded. It is concluded that affinities for various constituents of host cell nuclei are likely to determine the nuclear accumulation of...

MEDICAL DESCRIPTORS:

*cell culture; *cell nucleus; **herpes* *simplex* *virus*; *virus infection

SECTION HEADINGS:

047 Virology

029 Clinical and Experimental Biochemistry

016 *Cancer*

013 Dermatology and Venereology

10/3,K/34 (Item 20 from file: 73)
DIALOG(R)File 73:EMBASE
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00981869 EMBASE No: 1978110193

Regulation of herpes virus macromolecular synthesis. VI. Synthesis and modification of viral polypeptides in enucleated cells

Fenwick M.; Roizman B.

Marjorie B. Kovler Viral Oncol. Lab., Univ. Chicago, Ill. 60637 United States

Journal of Virology (J. VIROL.) (United States) 1977, 22/3 (720-725)

CODEN: JOVIA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

Cells were enucleated with cytochalasin B after infection with *herpes* *simplex* *virus* 1. When protein synthesis was blocked by cycloheximide from the time of infection, mRNA for viral alpha-infected cell polypeptides

(*ICP*) 4, 0, and 27 accumulated in the cytoplasm and was processed after the removal of both drug and nucleus. A host protein, *ICP* 22, whose synthesis is stimulated in intact cells, was not made, and viral protein *ICP* 4, which is normally modified to a form that migrates more slowly in polyacrylamide gels, was not modified in the absence of the nucleus. After

...to be made, starting at 20 to 25% of the normal rates and declining with a half-time of about 2 h. The synthesis of *ICP* 4 declined more rapidly, suggesting that it is switched off in the cytoplasm.

MEDICAL DESCRIPTORS:

*cell nucleus; **herpes* *simplex* *virus*

SECTION HEADINGS:

047 Virology

016 *Cancer*

10/3,K/35 (Item 21 from file: 73)

DIALOG(R) File 73:EMBASE

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00966262 EMBASE No: 1978094586

Regulation of herpesvirus macromolecular synthesis. V. Properties of alpha polypeptides made in HSV 1 and HSV 2 infected cells

Pereira L.; Wolff M.H.; Fenwick M.; Roizman B.

Comm. Virol., Univ. Chicago, Ill. 60637 United States

Virology (VIROLOGY) (United States) 1977, 77/2 (733-749)

CODEN: VIRLA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

...and properties of alpha polypeptides specified by herpes simplex viruses (HSV) 1 and 2 showed the following: the three earliest virus-specific infected cell polypeptides (*ICP*) made in HSV-2 infected cells migrated slightly more slowly in polyacrylamide gels than the HSV-1 alpha polypeptides, *ICP* 4.0 and 27. Cells treated with canavanine from the time of infection with HSV-2 produced all alpha, a subset of beta, and a...

...this study underwent translocation into the nucleus, posttranslational modification resulting in a reduced electrophoretic mobility and phosphorylation. The modification of HSV-1 and HSV-2 *ICP* 4 was in at least two steps from the translational product *ICP* 4a, labeled during a pulse, to slower-migrating forms *ICP* 4b and 4c. All three forms were phosphorylated but only 4b and 4c were found in the nucleus. In untreated infected cells, *ICP* 4 ultimately accumulated in form *ICP* 4c. *ICP* 4a made in the presence of canavanine was not processed efficiently into *ICP* 4c. In another instance, the polypeptides made in the presence of canavanine were not translocated into nuclei.

MEDICAL DESCRIPTORS:

*cell culture; **herpes* *simplex* *virus*; *virus infection

SECTION HEADINGS:

047 Virology

016 *Cancer*

029 Clinical and Experimental Biochemistry

013 Dermatology and Venereology

10/3,K/36 (Item 22 from file: 73)

DIALOG(R) File 73:EMBASE

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00808242 EMBASE No: 1977153753

Proteins of herpesvirus type 2. II. Studies demonstrating a correlation between a tumor associated antigen (AG 4) and a virion protein

Strnad B.C.; Aurelian L.

Dept. Lab. Anim. Med., Johns Hopkins Univ. Sch. Med., Baltimore, Md.

21205 United States
Virology (VIROLOGY) 1976, 73/1 (244-258)
CODEN: VIRLA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Antigen AG 4, a HSV 2 antigen associated with actively growing squamous cervical tumors, correlates with infected cell protein number 10 (*ICP* 10), a minor component of the HSV 2 virion. This association is based on the following evidence: There is a positive correlation between the amounts of AG 4 and *ICP* 10 produced at various times following sequential treatment of infected cells with cycloheximide and actinomycin D; the passage history of HSV 2 affects the synthesis of AG 4 and *ICP* 10 in a similar manner; their synthesis is unaffected by the cell type; *ICP* 10 is precipitated by AG 4 positive but not by AG 4 negative sera; following partial biochemical purification of crude AG 4 preparations, those fractions containing the AG 4 complement fixing activity differ from those without this activity in that they contain *ICP* 10.

MEDICAL DESCRIPTORS:

*antigen purification; *oncovirinae; *cell culture; *herpes simplex; *herpes* *simplex* *virus*; *virus; *virus infection

SECTION HEADINGS:

047 Virology
016 *Cancer*
026 Immunology, Serology and Transplantation

?ds

Set	Items	Description
S1	59466	(HERPES (W) SIMPLEX (W) VIRUS) OR (HSV-1) OR (HSV-2)
S2	0	(GAMMA (W) 34.5) OR (ICP (W) 34.5)
S3	10463	(? (W) 34.5) OR (ICP)
S4	342	S1 AND S3
S5	50	S4 AND (CANCER?)
S6	0	S5 AND (MUTANT (W) HSV-?)
S7	2	S5 AND (MUTANT (W) HSV)
S8	2	RD (unique items)
S9	1	S5 AND (STRAIN (W) (1716 OR 1771 OR 2604 OR 2616 OR 2621))
S10	36	RD S5 (unique items)

?logoff

29jul00 10:58:45 User259876 Session D94.2
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\$2.80 14 Type(s) in Format 3
\$2.80 14 Types
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\$6.72 1.200 DialUnits File5
\$4.95 3 Type(s) in Format 3
\$4.95 3 Types
\$11.67 Estimated cost File5
\$14.40 1.694 DialUnits File73
\$51.70 22 Type(s) in Format 3
\$51.70 22 Types
\$66.10 Estimated cost File73
OneSearch, 3 files, 3.884 DialUnits FileOS
\$0.75 TYMNET
\$84.49 Estimated cost this search
\$84.90 Estimated total session cost 3.999 DialUnits

Status: Signed Off. (15 minutes)